

WHAT IS CLAIMED IS:

1. A method for manufacturing a plurality of kinds of sheets, each having a substrate and an ionizing radiation curing type resin layer on at least one of said substrate, comprising:

5 carrying out formation of said ionizing radiation curing type resin layer for each of said plurality of kinds of sheets, while changing forming conditions based on preset values for each of said plurality of kinds of sheets.

- 10 2. A method for manufacturing a plurality of kinds of sheets, each having a substrate and an ionizing radiation curing type resin layer on at least one of said substrate, comprising::

identifying a kind of sheet to be manufactured by means of a sensor; and

15 carrying out formation of said ionizing radiation curing type resin layer for each of said plurality of kinds of sheets, while changing forming conditions based on results of said identifying step.

3. A method for manufacturing a plurality of kinds of sheets, each having a substrate and an ionizing radiation curing type resin layer on at least one of said substrate, comprising::

20 identifying a kind of sheet to be manufactured by means of a sensor; and

25 carrying out formation of said ionizing radiation curing type resin layer for each of said plurality of kinds of sheets, while changing forming conditions based on both of preset values for each of said plurality of kinds of sheets and results of said identifying step.

4. The method as claimed in any one of Claims 1 to 3, wherein:
said formation is conducted by utilizing a forming mold for at

least one kind of sheets to be manufactured, said forming mold providing a sheet having a reproduced shape based on said forming mold.

5. The method as claimed in any one of Claims 1 to 3, wherein:

5 said formation is conducted by utilizing a cover film for at least one kind of sheets to be manufactured.

6. The method as claimed in Claim 4, wherein:

said formation is conducted by carrying out the steps of:

10 applying ionizing radiation curing type resin in a form of liquid on said forming mold to form an uncured resin body thereon;

placing said substrate on said uncured resin body and then pressing said substrate against said uncured resin body to flatten said uncured resin body;

15 irradiating ionizing radiation on said uncured resin layer through said substrate to cure said uncured resin layer; and

removing said cured resin layer together with said substrate from said forming mold.

7. The method as claimed in Claim 5, wherein:

said formation is conducted by carrying out the steps of:

20 applying ionizing radiation curing type resin in a form of liquid on said substrate to form an uncured resin body thereon;

placing said cover film on said uncured resin body and then pressing said cover film against said uncured resin body to flatten said uncured resin body; and

25 irradiating ionizing radiation on said uncured resin layer through said pressure sheet to cure said uncured resin layer.

8. The method as claimed in Claim 7, wherein:

said steps further comprises removing said cured resin layer together with said substrate from said cover film after said irradiating step.

9. The method as claimed in any one of Claims 1 to 3, wherein:

5 said at least one kind of sheets is a lens sheet for a transmission type screen.

10. The method as claimed in Claim 4, wherein:

 said at least one kind of sheets is a lens sheet for a transmission type screen.

10 11. The method as claimed in Claim 5, wherein:

 said at least one kind of sheets is a lens sheet for a transmission type screen.

12. The method as claimed in Claim 6, wherein:

15 said at least one kind of sheets is a lens sheet for a transmission type screen.

13. The method as claimed in Claim 7, wherein:

 said at least one kind of sheets is a lens sheet for a transmission type screen.

14. The method as claimed in Claim 8, wherein:

20 said at least one kind of sheets is a lens sheet for a transmission type screen.

15. The method as claimed in Claim 6, wherein:

25 said forming conditions include at least one of (i) a position in which the ionizing radiation curing type resin is to be applied, (ii) an amount of the ionizing radiation curing type resin; (iii) a kind of the

ionizing radiation curing type resin; (iv) a size and thickness of said substrate; (v) a size and thickness of said forming mold; (vi) magnitude of pressing force applied to said substrate and (vii) a position to which the pressing force is to be applied.

- 5 16. The method as claimed in Claim 12, wherein:

10 said forming conditions include at least one of (i) a position in which the ionizing radiation curing type resin is to be applied, (ii) an amount of the ionizing radiation curing type resin; (iii) a kind of the ionizing radiation curing type resin; (iv) a size and thickness of said substrate; (v) a size and thickness of said forming mold; (vi) magnitude of pressing force applied to said substrate and (vii) a position to which the pressing force is to be applied.

- 15 17. The method as claimed in Claim 7, wherein:

20 said forming conditions include at least one of (i) a position in which the ionizing radiation curing type resin is to be applied, (ii) an amount of the ionizing radiation curing type resin; (iii) a kind of the ionizing radiation curing type resin; (iv) a size and thickness of said substrate; (v) a size and thickness of said cover film; (vi) magnitude of pressing force applied to said substrate and (vii) a position to which the pressing force is to be applied.

- 25 18. The method as claimed in Claim 8, wherein:

said forming conditions include at least one of (i) a position in which the ionizing radiation curing type resin is to be applied, (ii) an amount of the ionizing radiation curing type resin; (iii) a kind of the ionizing radiation curing type resin; (iv) a size and thickness of said substrate; (v) a size and thickness of said cover film; (vi) magnitude of pressing force applied to said substrate and (vii) a position to which the

pressing force is to be applied.

19. The method as claimed in Claim 13, wherein:

5 said forming conditions include at least one of (i) a position in which the ionizing radiation curing type resin is to be applied, (ii) an amount of the ionizing radiation curing type resin; (iii) a kind of the ionizing radiation curing type resin; (iv) a size and thickness of said substrate; (v) a size and thickness of said cover film; (vi) magnitude of pressing force applied to said substrate and (vii) a position to which the pressing force is to be applied.

- 10 20. The method as claimed in Claim 14, wherein:

15 said forming conditions include at least one of (i) a position in which the ionizing radiation curing type resin is to be applied, (ii) an amount of the ionizing radiation curing type resin; (iii) a kind of the ionizing radiation curing type resin; (iv) a size and thickness of said substrate; (v) a size and thickness of said cover film; (vi) magnitude of pressing force applied to said substrate and (vii) a position to which the pressing force is to be applied.

21. An apparatus for manufacturing a plurality of kinds of sheets, each having an ionizing radiation curing type resin layer, comprising:

20 a control device, in which preset values of forming conditions for each of said plurality of kinds of sheets are previously input, for controlling formation of said ionizing curing type resin layer for each of said plurality of kinds of sheets, while changing the forming conditions based on the preset values.

- 25 22. An apparatus for manufacturing a plurality of kinds of sheets, each having an ionizing radiation curing type resin layer, comprising:

a sensor for identifying a kind of sheet to be manufactured; and

a control device, in which preset values of forming conditions for each of said plurality of kinds of sheets are previously input, for controlling formation of said ionizing curing type resin layer for each of said plurality of kinds of sheets, while changing the forming conditions based on results obtained by said sensor.

23. An apparatus for manufacturing a plurality of kinds of sheets, each having an ionizing radiation curing type resin layer, comprising:

a sensor for identifying a kind of sheet to be manufactured; and
a control device, in which preset values of foaming conditions for each of said plurality of kinds of sheets are previously input, for controlling formation of said ionizing curing type resin layer for each of said plurality of kinds of sheets, while changing the forming conditions based on both of preset values for each of said plurality of kinds of sheets and results obtained by said sensor.

24. The apparatus as claimed in any one of Claims 21 to 23, further comprising:

a conveying device for conveying a forming mold for each of said plurality of kinds of sheets;

an application device for applying ionizing radiation curing type resin in a form of liquid on said forming mold to form an uncured resin body thereon;

a substrate supply device for placing a substrate on said uncured resin body;

a pressing device for pressing said substrate against said uncured resin body to flatten said uncured resin body, so as to form a uncured resin layer; and

an irradiation device for irradiating ionizing radiation on said uncured resin layer through said substrate to cure said uncured resin

layer.

25. The apparatus as claimed in any one of Claims 21 to 23, further comprising:

5 a conveying device for conveying a substrate for each of said plurality of kinds of sheets;

an application device for applying ionizing radiation curing type resin in a form of liquid on said substrate to form an uncured resin body thereon;

10 a cover film supply device for placing a cover film on said uncured resin body;

a pressing device for pressing said cover film against said uncured resin body to flatten said uncured resin body, so as to form a uncured resin layer; and

15 an irradiation device for irradiating ionizing radiation on said uncured resin layer through said cover film to cure said uncured resin layer.

26. The apparatus as claimed in Claim 24, wherein:

said application device has a plurality of nozzles for applying the ionizing radiation curing type resin.

- 20 27. The apparatus as claimed in Claim 25, wherein:

said application device has a plurality of nozzles for applying the ionizing radiation curing type resin.

28. The apparatus as claimed in Claim 26, wherein:

25 said plurality of nozzles applies different kinds of ionizing radiation curing type resin.

29. The apparatus as claimed in Claim 27, wherein:

said plurality of nozzles applies different kinds of ionizing radiation curing type resin.

30. The apparatus as claimed in Claim 26, wherein:

5 said plurality of nozzles include a plurality of multiple nozzles, each of said multiple nozzles having a structure in which a plurality of micro nozzles are place in a row.

31. The apparatus as claimed in Claim 27, wherein:

10 said plurality of nozzles include a plurality of multiple nozzles, each of said multiple nozzles having a structure in which a plurality of micro nozzles are place in a row.

32. The apparatus as claimed in Claim 24, wherein:

said substrate supply device includes a plurality of suction cups for sucking said substrate, each of said suction cups being switchable between a suction state and a non-suction state.

15 33. The apparatus as claimed in Claim 26, wherein:

said substrate supply device includes a plurality of suction cups for sucking said substrate, each of said suction cups being switchable between a suction state and a non-suction state.

34. The apparatus as claimed in Claim 28, wherein:

20 said substrate supply device includes a plurality of suction cups for sucking said substrate, each of said suction cups being switchable between a suction state and a non-suction state.

35. The apparatus as claimed in Claim 30, wherein:

25 said substrate supply device includes a plurality of suction cups for sucking said substrate, each of said suction cups being switchable between a suction state and a non-suction state.

36. The apparatus as claimed in Claim 25, wherein:

said cover film supply device includes a plurality of suction cups for sucking said cover film, each of said suction cups being switchable between a suction state and a non-suction state.

5 37. The apparatus as claimed in Claim 27, wherein:

said cover film supply device includes a plurality of suction cups for sucking said cover film, each of said suction cups being switchable between a suction state and a non-suction state.

10 38. The apparatus as claimed in Claim 29, wherein:

said cover film supply device includes a plurality of suction cups for sucking said cover film, each of said suction cups being switchable between a suction state and a non-suction state.

15 39. The apparatus as claimed in Claim 31, wherein:

said cover film supply device includes a plurality of suction cups for sucking said cover film, each of said suction cups being switchable between a suction state and a non-suction state.